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REMARKS

The application has been amended to address the cited informalities, to distinguish the claimed invention over the cited prior art, and to place the application into a *prima facie* condition for allowance. Substantial care has been taken to avoid the introduction of any new subject matter into the application as a result of the foregoing amendments.

Claims 1 - 8, 10 - 18, 20 and 21 have been rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. Specifically, the examiner has stated that the claims contain subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor, at the time the application was filed, had possession of the claimed invention. In particular, the Examiner has stated that "[c]laims 1 and 4 recited the limitations 'a negative air pressure differential between the air chamber and the ambient atmosphere'", and that this limitation was not fully described in the originally filed disclosure. Applicant respectfully and strenuously traverses the Examiner's basis for rejection of the claims under 35 USC 112, first paragraph.

Applicant respectfully submits that the cited limitation was clearly and expressly described in the specification as filed, in virtually the same terms set forth in the limitation. Notably, this limitation is directed to a highly salient feature of the invention. Applicant directs the Examiner's attention to paragraph [0038] of the application as filed, wherein it states as follows: "Seal membrane 70 is shown in its normal position in Figure 4. This positioning of seal membrane 70 is assumed in the absence of **negative air pressure** within air chamber 65, that is, when compressed air is introduced into air chamber 65, or when there is a neutral air pressure in air chamber 65." (Emphasis added) The use of the somewhat inelegant phrase "negative air pressure" would be immediately understood by one of ordinary skill in the art, to mean that the difference between the absolute air pressure within air chamber 65 and the surrounding or ambient air pressure would have to be **negative**, such as when a suction would be applied to the air chamber 65, in order for seal membrane to be in any position other than bearing against blade plate 16. Only in such circumstances would seal membrane

70 collapse so as to break its seal against blade plate 16. Not only was there complete support for the presently objected-to claim limitations in the application as originally filed, this limitation represents a significant aspect of the invention and its improvement over the prior art, specifically the cited *Dryer et al.* '472 reference. See also paragraph [0005] of the originally-filed application, wherein the limitations of the *Dryer et al.* '472 reference are discussed. As such, the applicant clearly had possession of this claimed invention at the time of filing of the application. To ensure that the Examiner is fully apprised as to the meaning of a "negative air pressure within air chamber 65" versus a "neutral" (or "ambient") air pressure in air chamber 65, Applicant has amended claims 1 and 4 to clarify the well-known distinctions between the two.

In view of the foregoing considerations, Applicant respectfully submits that the Examiner's basis for rejection of the claims under 35 U.S.C. 112, first paragraph should be deemed overcome, and reconsideration and withdrawal of the rejection of claims 1 - 8, 10 - 18, 20 and 21 (as amended) under 35 U.S.C. 112, first paragraph, are respectfully solicited.

Claims 1, 3 - 5, 7, 8, 16 - 18 and 21 have been rejected under 35 USC 102(b) as being anticipated by *Dreyer et al.*, US 4,474,205. Claims 2, 6, and 14 - 15 have been rejected under 35 USC 103(a) as being unpatentable over *Dreyer et al.* in view of *Clark et al.*, US 3,178,779. Claims 10 - 11 have been rejected under 35 USC 103(a) as being unpatentable over *Dreyer et al.* in view of Machine Design, "Fluoroelastomer extends pump applications". Claims 12 - 13 have been rejected under 35 USC 103(a) as being unpatentable over *Dreyer et al.* in view of *Ryder, Jr.*, US 4,381,985. Claim 20 has been rejected under 35 USC 103(a) as being unpatentable over *Dreyer et al.* in view of *Luffel et al.*, US 6,622,366. Applicant respectfully traverses the Examiner's substantive bases for rejection of the claims.

Applicant respectfully submits that the Examiner has still not addressed the clear functional and structural distinctions between the claimed invention as disclosed in Applicant's application, and the structure and mode of operation of the apparatus of the cited *Dryer et al.* '205 reference.

It is beyond argument that in the *Dryer et al.* '205 reference (which is clearly directed to the exact same blade damper and seal construction disclosed in the *Dryer et al.* '472 reference discussed in the instant application), the seal membrane must initially be inflated to a pressure within the air chamber that is **greater than ambient** (i.e., to have a **positive** pressure gradient, from the interior of the seal membrane relative to the surrounding air), in order for it to create a seal against a blade plate. See, e.g., col. 4, lines 3 - 21. Thus, if the mechanism supplying the positive (greater than ambient) pressure to the chamber in the seal membrane fails, such as by decreasing to **ambient** pressure, the seal fails and moves away from the blade plate, leading to leaking of the combustion gases.

Applicant's invention is configured in part (as expressly set forth in the specification as filed) to address this issue by providing a seal membrane which, in the presence of **ambient or greater** pressure in air chamber 65 (which translates to a zero or positive pressure gradient with respect to the surrounding air), is self-supporting to create a seal against the blade plate 16, and which moves away from the blade plate **only when** the pressure in the air chamber is **less than ambient**. Applicant respectfully submits that that these express distinctions between the prior art and Applicant's invention would not be lost on the Board of Patent Appeals and should not be disregarded by the Examiner.

Therefore, Applicant respectfully submits that Independent claims 1 and 4, *as previously amended*, patentably distinguish over the cited *Dreyer et al.* reference, inasmuch as there is no teaching or suggestion in the *Dreyer et al.* reference of any membrane configuration or function, other than the conventional function, which **requires a positive** air pressure differential, between the air chamber and the ambient atmosphere, respectively, in order to prompt and/or maintain the membrane into its closed, sealing position. Applicant respectfully directs the Examiner's attention to col. 4, lines 3 - 21, of *Dreyer et al.*, wherein it is described how "re-inflation" of the sealing ring requires an application of 5 - 10 psi (obviously gauge, not absolute) -- whereas in Applicant's invention, all that is required is removal of the negative air pressure differential. Furthermore, in the *Dreyer et al.* reference, the existence of this

crucial, positive air pressure differential, between the interior of the sealing ring, and the ambient atmosphere, is *required* -- because the ring is preferably located on the high pressure side of the damper blade (col. 4, line 14).

In view of the foregoing, Applicant respectfully submits and reiterates that not only does the *Dreyer et al.* reference completely fail to teach or suggest Applicant's invention of amended claims 1 and 4, but also that it may not be combined with any other reference to do so, as that would be against the express teachings of the reference, which not only fails to teach the removal of a negative pressure, but also expressly teaches the application of a positive air pressure differential to reinflate the sealing ring. As such, Applicant submits that independent claims 1 and 4 patentably define over the cited *Dryer et al.* '205 reference and should be allowed.

Applicant accordingly respectfully submits that the Examiner's substantive basis for rejection of independent claims 1 and 4 should be deemed overcome, and reconsideration and withdrawal of the rejections of claims 1 and 4 are respectfully solicited.

Inasmuch as dependent claims 2, 3, 5 - 8, 10 - 18 and 20 - 21 merely serve to further define the subject matter of amended independent claims 1 and 4, which themselves should be deemed patentable, Applicant respectfully submits that dependent claims 2, 3, 5 - 8, 10 - 18 and 20 - 21 likewise should be deemed to patentably distinguish over the cited prior art. Reconsideration and withdrawal of the rejection of dependent claims 2, 3, 5 - 8, 10 - 18 and 20 - 21, and allowance thereof are respectfully solicited.

Applicant submits that the application, as a whole, is in a *prima facie* condition for allowance at this time, and reconsideration and allowance of the application, are accordingly, respectfully solicited.

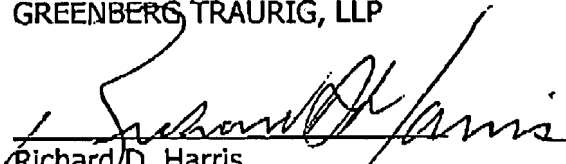
Applicant respectfully requests the opportunity to discuss the invention and the *Dreyer et al.* reference with the examiner, in a telephonic interview, **prior to the issuance of any further office actions**, should the examiner continue to be of the opinion that the *Dreyer et al.* reference is still relevant to a rejection under either 35 U.S.C. §102(b) or 35 U.S.C. §103(a) -- and to obviate the need for consideration of

appellate procedure to address the clear distinctions between the prior art and Applicant's Invention.

Should anything further be required, a telephone call to the undersigned, at (312) 456-8400, is respectfully invited.

Respectfully submitted,
GREENBERG TRAURIG, LLP

Dated: July 26, 2007


Richard D. Harris

One of Attorneys for Applicant

CERTIFICATE OF TRANSMISSION

I hereby certify that this AMENDMENT AND COMMUNICATION is being deposited with the United States Postal Service as first class mail, in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, or is being facsimile transmitted to the USPTO, at fax number 571-273-8300, on July 26, 2007.


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